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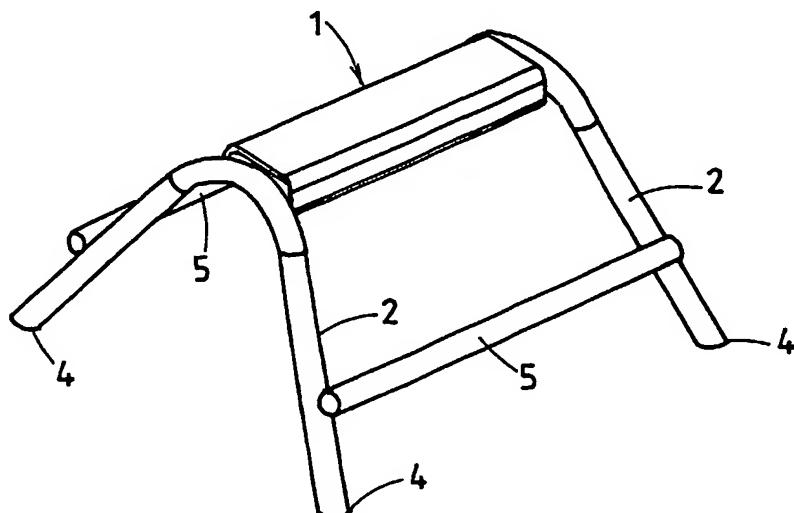
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TILE SPIDER



(57) Abstract: A tool for use in laying floor tiles onto an adhesive layer the tool including a raised hand or foot grip (1) mounted on a plurality of legs (2) splayed outwardly and downwardly relative to the hand grip to thereby form a hand rest raised to a working height above a floor on which the legs are resting.

WO 2004/015222 A1

Tile Spider

Field of the Invention

The invention relates to a tool for use in the tile industry and particularly to a tool for assisting in the laying of tiles and a method involved in the laying of floor tiles using the tool.

Background to the Invention

At present the laying of tiles can be a back breaking exercise particularly when tiles are laid on a floor.

An object of the invention is to provide a method of laying tiles and a tool for use in the method which makes a tiler's job easier, creates less fatigue and will therefore reduce back and neck complaints at the same time as offering a useful alternative choice.

Summary of the Invention

According to the invention there is provided a tool for use in a method of laying floor tiles, the tool including a raised hand or foot grip or step region mounted on a plurality of legs splayed outwardly and downwardly relative to the hand or foot grip or step region to thereby form a hand or foot rest raised to a working height above a floor or the like surface on which the legs are resting.

The grip or step region can be raised about 100mm above the level of the bottom of the legs.

The grip or step region can be raised on three, four or more legs.

According to a second aspect of the invention the tool as hereinbefore described can be placed in laid adhesive on an area to be tiled so a tiler can walk, stand or rest his or her hand or foot on the grip or step region to therefore make the tiler's task easier.

In use a tiler can step in and over laid tiles and/or adhesive by using one or more of the tile spider tool(s) to effect more work while supporting themselves by hand or foot. This tool keeps the tiler's shoulders in a more even plane rather than bending forward thereby creating less body stress and strain.

The added height of the legs enables the tiler to extend his/her work area.

Better weight distribution of the tiler is managed while maximising extension into a work area.

The use of the tool allows a tiler to step or lean into and lay tiles on an area prepared with adhesive.

The support area used by the tiler is not restricted to being placed on a dry tile or adhesive free area and this allows a tradesman to achieve a more comfortable working position. It allows a tiler to extend into tight areas.

The tool can be used as an island platform to work from into otherwise unreachable prepared areas. Use of more than one tile spider allows a tiler to walk into a prepared area and allows the tiler to maintain a straight back and even shoulders while extending into and over a work area.

Further advantages of the invention will become apparent from the following

descriptions.

Description of the Drawings

A particular example of the invention will be described with reference to the accompanying drawings in which:

- Figure 1 shows in views (a) to (h) a tiler in a series of different positions using a tile spider in use;
- Figure 2 shows a plan view of the spider;
- Figure 3 shows an elevation of the spider;
- Figure 4 shows an end elevation of the spider; and
- Figure 5 shows a perspective view of the spider.

Description of the Preferred Example

An example of the invention and its use will now be described.

In Figures 2 to 5 is shown an example of tile spider according to the invention. In the example the tile spider has a raised hand or foot grip or step region 1 mounted on a plurality of legs 2 which are splayed outwardly and downwardly relative to the hand or foot grip or step region 1 to thereby form a hand or foot rest raised to a working height above a floor or the like surface on which the legs 2 are resting.

In the example the grip or step region 1 is constructed from a short length of box or rectangular section steel. The ends 4 of the grip or step region 1 can be fixed to legs 2 each pair of which is constructed in the form of inverted U or V. The U or V - shaped legs can be formed from an appropriate length of pipe, rod or tube. The legs 2 are maintained in their splayed apart orientation shown in Figure 5 by transverse members 5.

The grip or step region 1 can be raised about 100mm above the level of the bottom of the legs 2.

In Figure 1 is shown a variety of positions and situations where the tile spider can be used. For example drawing 1(a) shows a tiler reaching over an area covered by an adhesive. The tile spider is shown partly resting on the adhesive. This enables the tiler to extend his work area as shown into a corner while maintaining balance and a good body position.

In Figure 1(b) the tiler is shown with a straighter than normal back while reaching over an area covered by adhesive.

In Figures 1(c), (d), (f) and (g) the tiler is shown in further positions which can be adopted when using the tile spider.

In Figure 1(e) and (h) are shown two examples of position for a tiler standing in a crouched position on a tile spider in the centre of an area being tiled.

Advantages of the invention are improved productivity and an increase in the area over which a tiler can reach particularly over areas prepared with adhesive.

A particular example of the invention has been described and it is envisaged that improvements and modifications can take place without departing from the scope of the attached claims.

Claims

1. A tool for use in a method of laying floor tiles, the tool including a raised hand or foot grip or step region mounted on a plurality of legs splayed outwardly and downwardly relative to the hand or foot grip or step region to thereby form a hand or foot rest raised to a working height above a floor or the like surface on which the legs are resting.
2. A tool as claimed in claim 1 wherein the grip or step region is raised about 100mm above the level of the bottom of the legs.
3. A tool as claimed in claim 1 or claim 2 wherein the grip or step region is raised on three, four or more legs.
4. A tool as claimed in any one of the preceding claims wherein the raised hand or foot grip or step region is constructed from a length of box or rectangular section metal.
5. A tool as claimed in any one of the preceding claims wherein the legs are constructed from a length of pipe, tube or rod.
6. A tool as claimed in claim 5 wherein the legs are inverted U or V shaped in side elevation.
7. A method of laying tiles using the tool as claimed in any one of claims 1 to 6 wherein the tool is placed in laid adhesive on an area to be tiled so a tiler can walk, stand or rest his or her hand or foot on the grip or step region to thereby make the tiler's task easier.

8. A method as claimed in claim 7 wherein a tiler can step in and over laid tiles and/or adhesive by using one or more of the tile spider tool(s) to effect more work while supporting themselves by hand or foot.
9. A method of laying tiles using the tool as claimed in any one of claims 1 to 6 wherein the tool is placed on a dry tile or adhesive free area so a tiler can walk, stand or rest his or her hand or foot on the grip or step region to thereby make the tiler's task easier.
10. A method as claimed in any one of claims 7 to 9 wherein the tool is used as an island platform to work from into otherwise unreachable prepared areas.
11. A method as claimed in claim 10 wherein the use of more than one tile spider allows the tiler to walk into a prepared area and allows the tiler to maintain a straight back and even shoulders while extending into and over a work area.

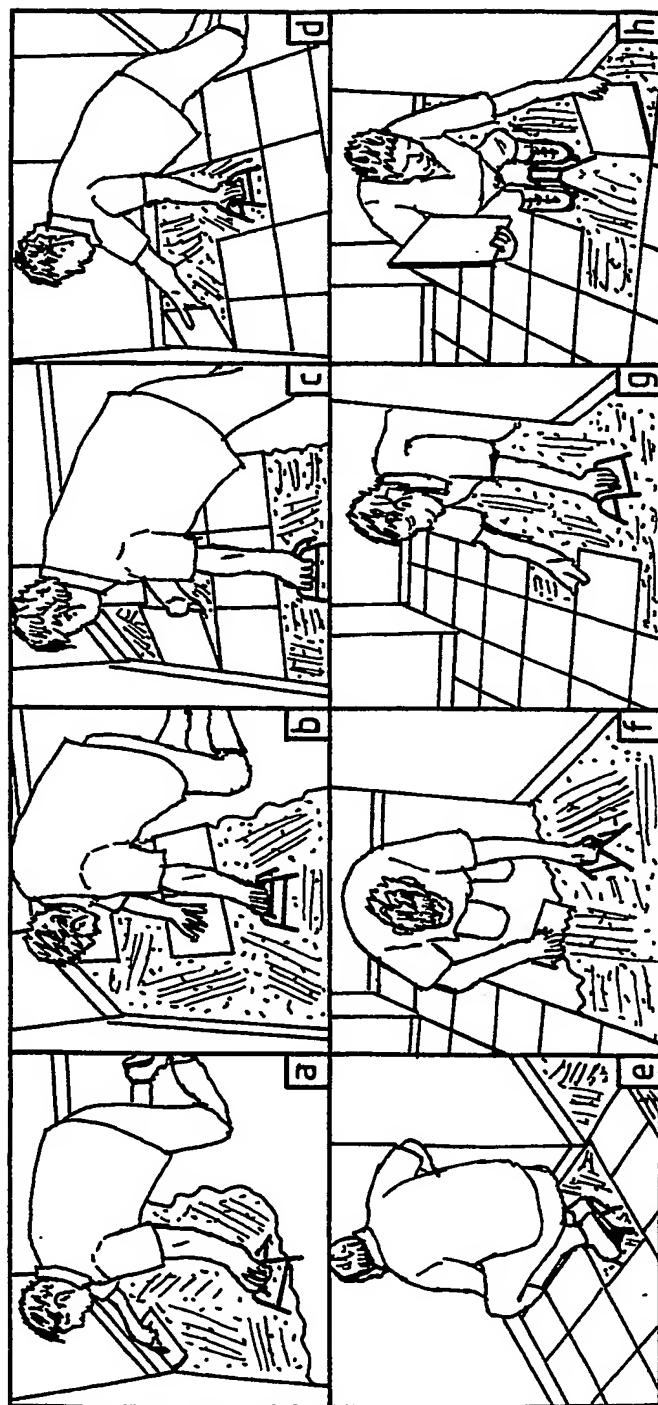


FIG.1

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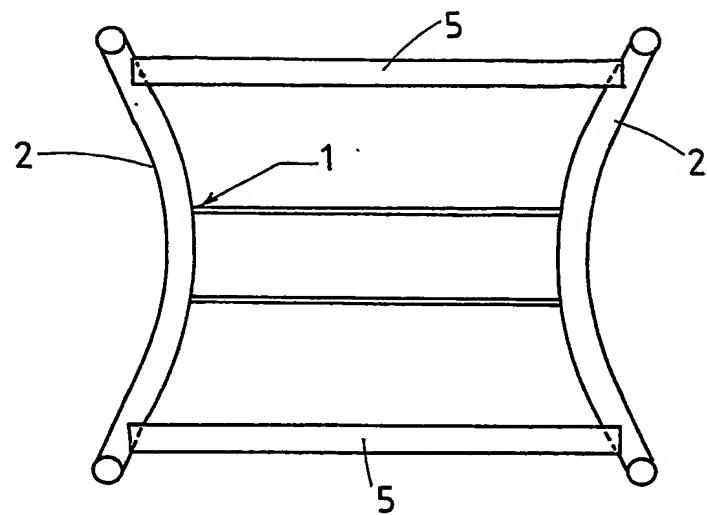


FIG. 2

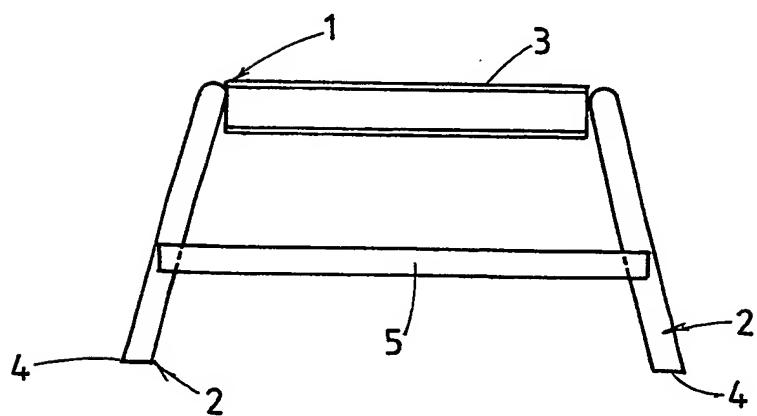


FIG. 3

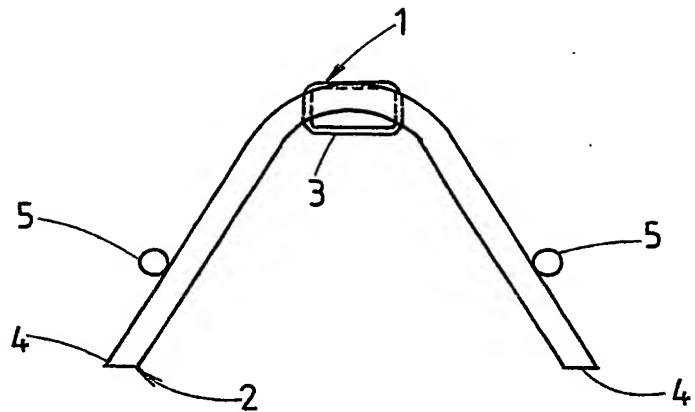


FIG. 4

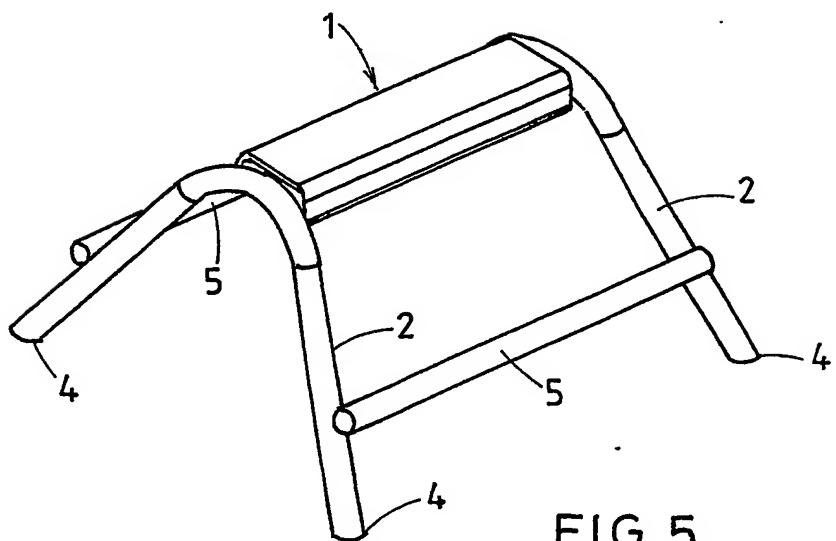


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ03/00178

A. CLASSIFICATION OF SUBJECT MATTER

Int. CL⁷: E04F 21/00, E04G 23/02, 21/00, E01C 23/00, 23/01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

REFER ELECTRONIC DATA BASE CONSULTED BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU: IPC E04F 15/06, 21/00, 21/16, E04G 21/00, 21/16, 23/02, E01C 23/00, 23/01

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI: keywords; tile, tiling, slate, pave, paving, rest, support, stand, seat, grip, chair, pedestal, stool, platform, spider, lay, appl, floor, slab, hand, foot, shoe, boot, footwear, person, tiler and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 93/08717 A1 (PAVIMENTLEGNO DEL DR DE LUCA R & C.S.N.C.) 13 May 1993 Derwent Abstract Accession No. 97-075648/07, Class Q45, Q46, NL 1000367 C6 (GIELEN) 18 November 1996	
A	DE 20103366 U1 (HECK) 10 May 2001	
A		

Further documents are listed in the continuation of Box C

See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer SUE THOMAS Telephone No : (02) 6283 2454

INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	DE 10156295 A1 (BOEK) 5 June 2003	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/NZ03/00178

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member	
WO	93/08717	AU	23701/92
NL	1000367		NIL
DE	20103366U		NIL
DE	10156295		NIL
END OF ANNEX			